# Consensus Guidelines for Timing and Treatment of Abdominal Aortic Aneurysms

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# Disclosure Statement of Financial Interest

*Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.*

| ***Affiliation/Financial Relationship*** | ***Company*** |
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| • Advisory Board | • Gore, Philips |
| • Consulting Fees/Honoraria | • Philips |

*All TCT 2018 faculty disclosures are listed online and on the App.*

# Background

- Pooled estimates of rupture risk much less than previously thought
  - 5.3% for AAA 5.5 – 7.0 cm
  - 6.3% for AAA > 7.0 cm
- Risk is higher among female smokers


Chaikof, EL, et al. JVS. 2018; 67(1):2-77.

# Identification

- **Initial screenings should be done with ultrasound (1A)**
  - One time screening for both men & women with history of smoking (65-75 years and healthy patients >75 years)
  - First degree relatives of AAA patients same age criteria (2C)
- **Aortic Size**
  - >2.5 cm to <3 cm: Rescan in 10 years (2C)
  - 3 to 3.9 cm: Rescan in 3 year intervals (2C)
  - 4 to 4.9 cm: Rescan in 1 year intervals (2C)
  - 5 to 5.4 cm: Rescan at 6 mo intervals (2C)
- **Symptomatic patients should get CTA (1B)**
  - CTA should measure Outer Wall to Outer Wall


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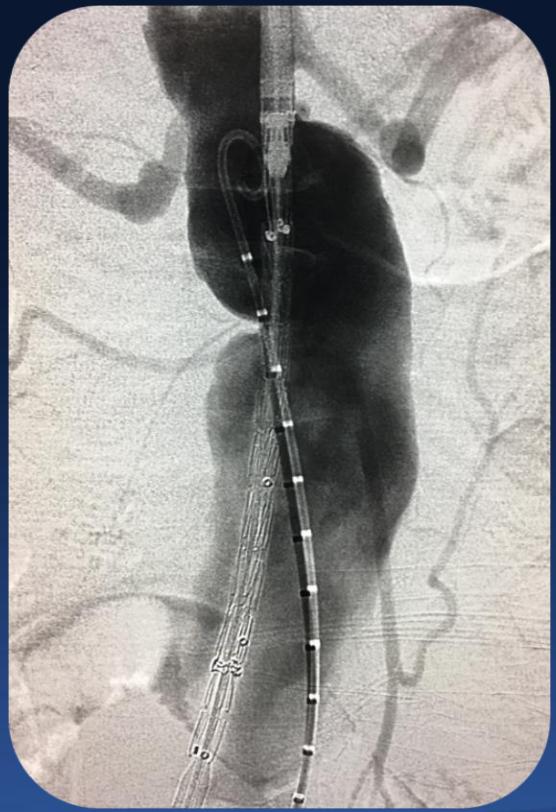
# Identification

- **Elective EVAR**
  - **≥5.5 cm Fusiform AAA (1A)**





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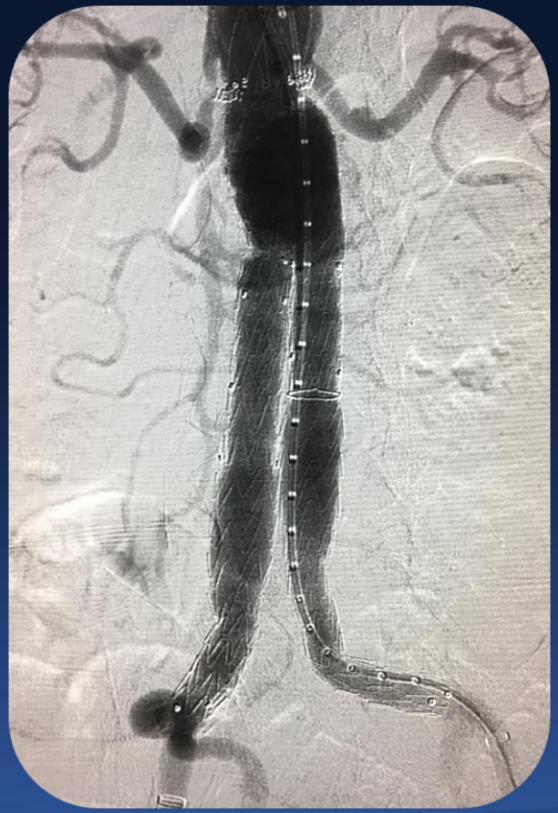



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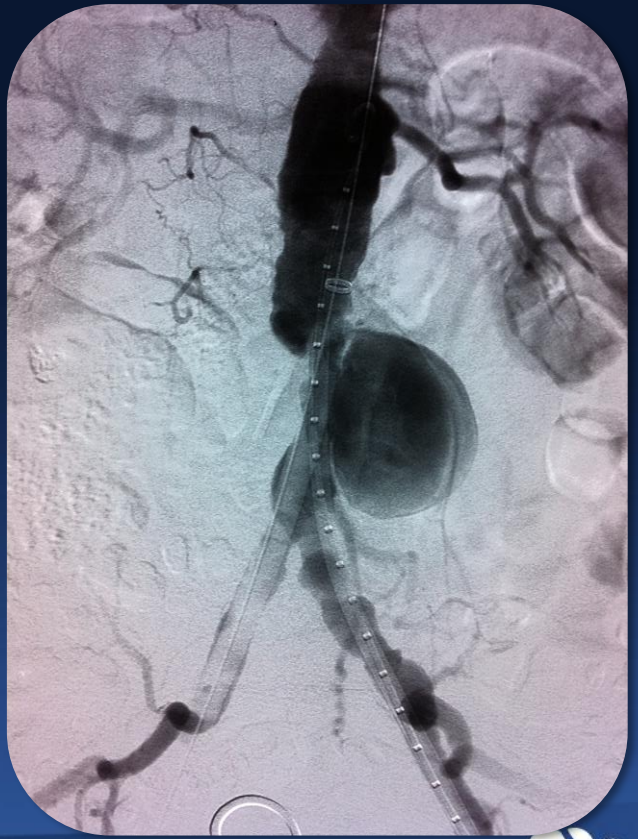
# Identification

- Elective EVAR
  - ≥5.5 cm Fusiform AAA (1A)
  - Any Saccular AAA (2C)
    - No size criteria
    - Very rare finding





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# Identification

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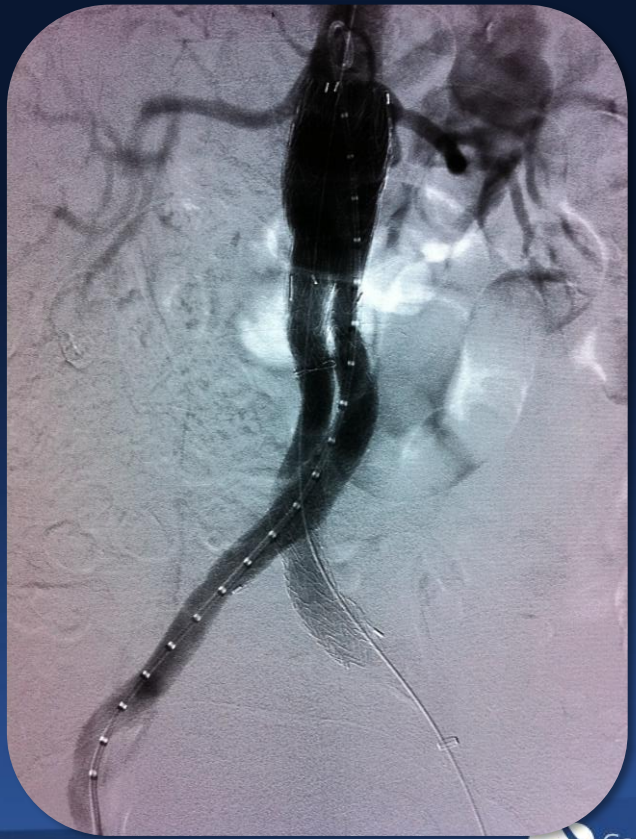
  - **Any Saccular AAA (2C)**
    - **No size criteria**
    - **Very rare finding**
  - **Women 5.0 - 5.4 cm (2C)**
  - **Small Aneurysms 4.0 – 5.4 cm in Special Populations**
    - **Chemotherapy**
    - **XRT**
    - **Solid Organ Transplant**





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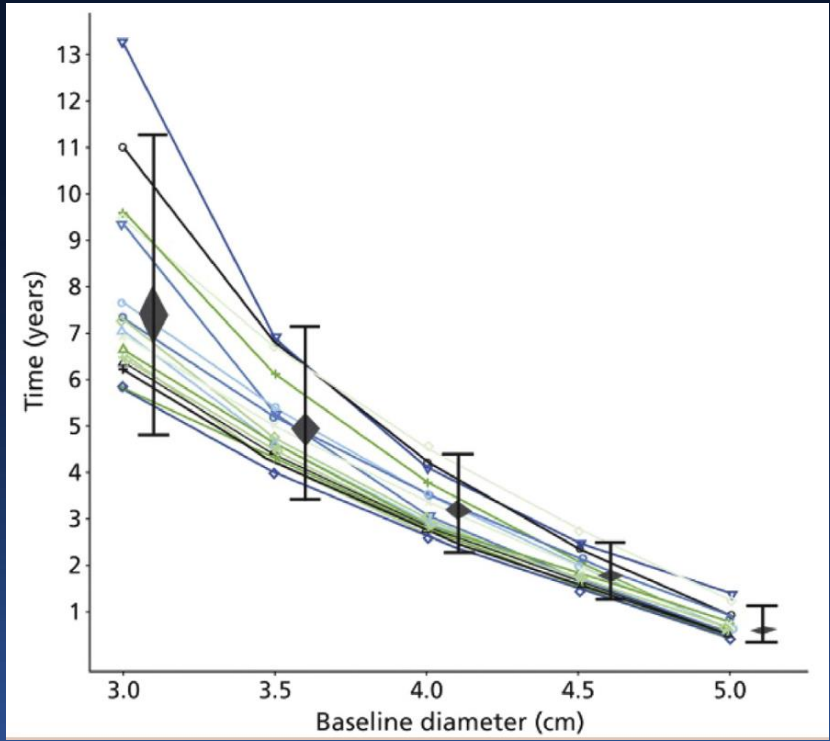
# Identification

- **Elective EVAR**
  - **Time it takes to get to 5.5 cm in men (multiple studies)**
  - **SVS does not comment on rate of expansion (0.5 cm/6 months)**
  - **5.0 cm cutoff in younger patients**



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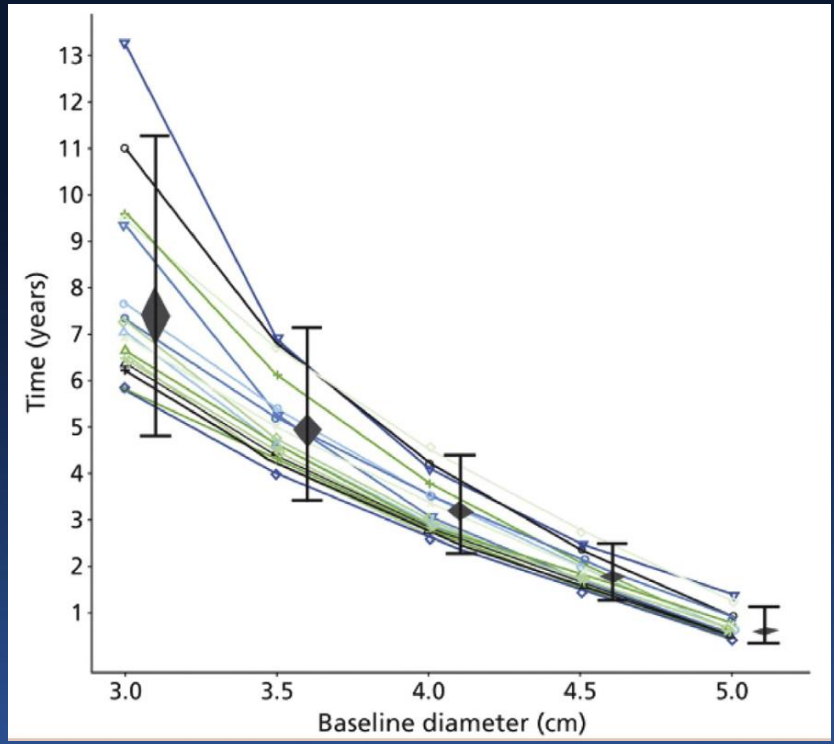
  - **Immediate EVAR vs. surveillance for AAAs between 4.1 and 5.4 cm (CAESAR) and 4.0 and 5.0 cm (PIVOTAL) and found no survival benefit for early EVAR (not powered for age groups)**



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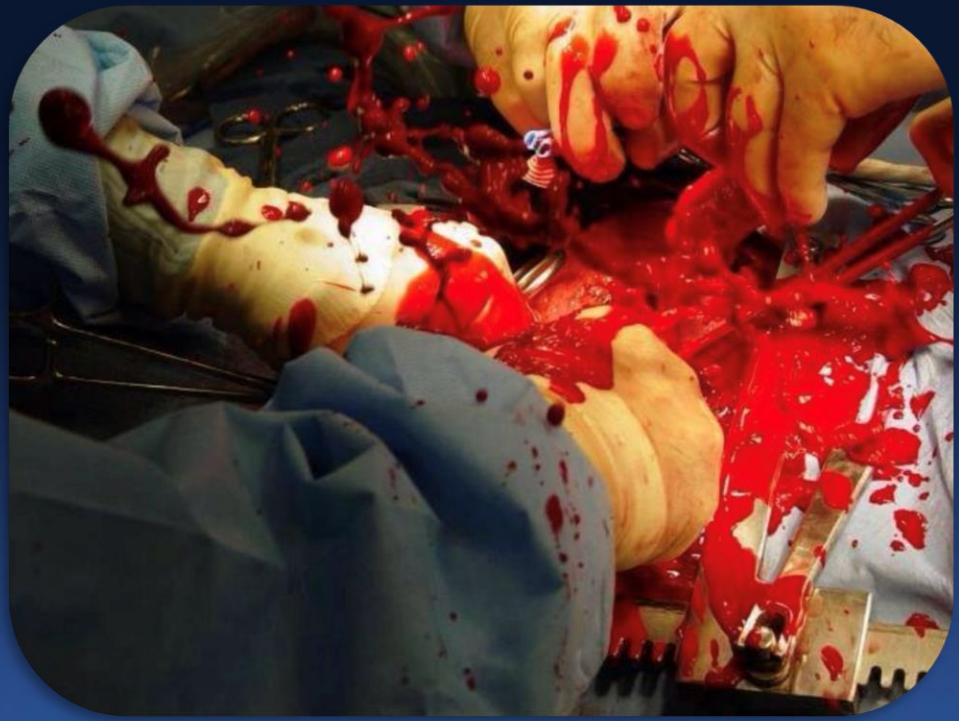
# Identification

- **Emergent EVAR**
  - **Immediate treatment for ruptures (1A)**
  - **EVAR first over OSR (1C)**
    - **Similar mortality (IMPROVE trial)**
    - **Shorter LOS; More patients go home**
  - **Door to treatment time 90 min**





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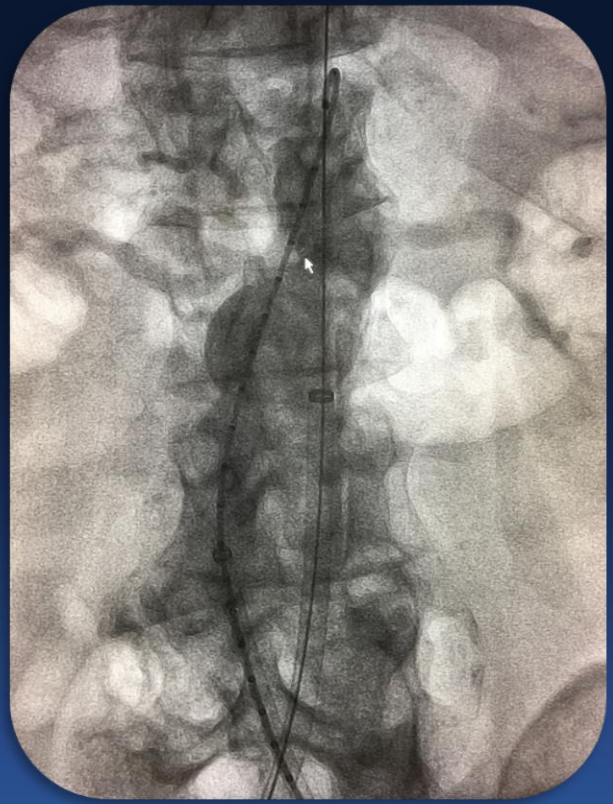



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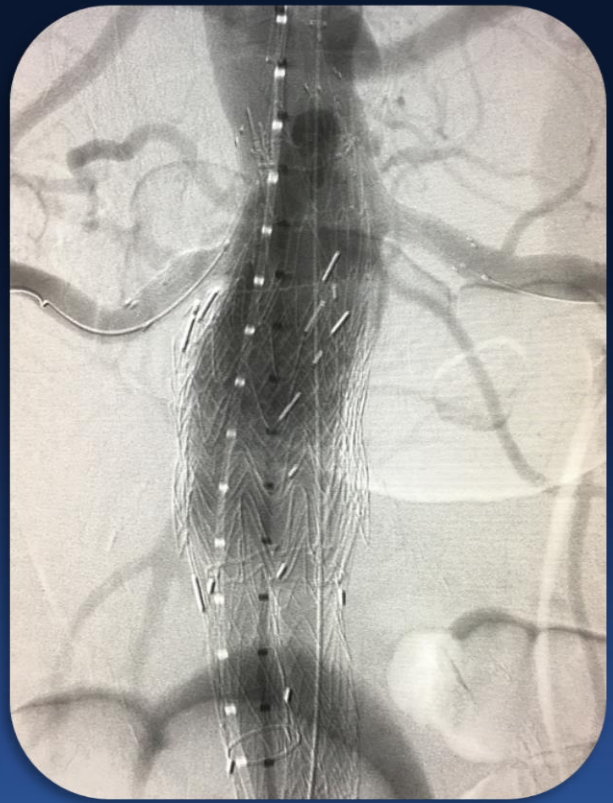



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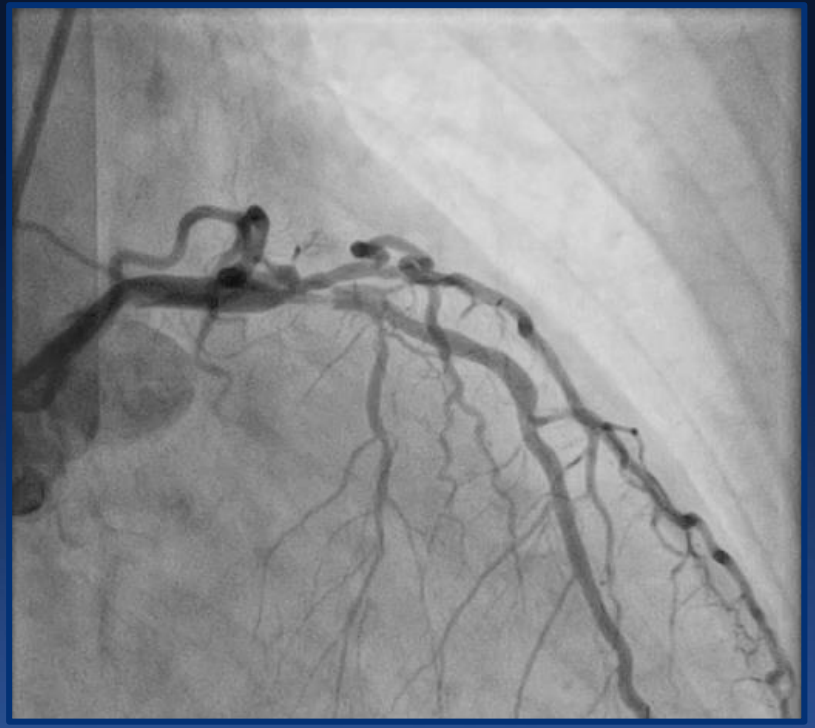
# Preoperative

- **CAD Treatment Prior**
  - **STEMI/NSTEMI/USA (1A)**
  - **Stable Angina with LM or 3VCAD (1A)**
  - **Stable Angina 2V CAD including Prox LAD and Ischemia or Reduced LVEF (2B)**
  - **If PCI planned with need for EVAR/OSR, POBA or BMS (2B)**
  - **Defer elective OSR/EVAR 30 days after PCI or CABG or do EVAR on dual antiplatelets (2B)**
  - **Defer OSR 6 mos after DES, or do EVAR on dual antiplatelets (2B)**





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# Perioperative

- **Hypo Occlusions**
  - **Preserve one IIA (1A) and used approved IBE devices (1A)**
  - **Stage bilateral hypo occlusions for 1-2 weeks prior to EVAR**
- **Treat symptomatic Renal and SMA disease prior to EVAR (2C)**
- **Treat asymptomatic SMA prior to EVAR with a meandering IMA (2C)**



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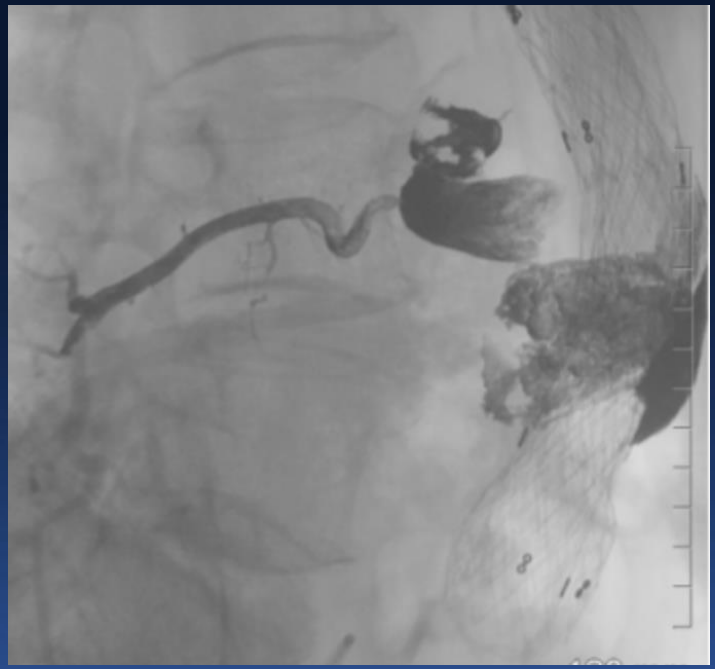
# Late Reinterventions

- Treat all Type I and IIIs (1B)
- Treat Type II associated with expansion (2C)
- Surveillance of Type II not associated with expansion (1B)
- OSR for Type I and III not amenable to endo with ongoing enlargement (1B), and Type II (2C)
- Treatment for expansion without endoleak (?Type V) (2C)





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# Summary

- Treat AAA > 5.5 cm (Outer Wall to Outer Wall)
- Treat >5.0 for Younger, Healthy Patients
- Annual Surveillance from 4.0 to 4.9
- Consider Treatment in Small Aneurysms (>4.0 cm) for Solid Organ Transplant, Radiation Therapy, or Chemo Patients (2C)
- Treat Saccular Aneurysms (2C)
- EVAR first for Ruptures (IC)